

Art Unit: 3600

Clmpto MH 09/14/1992

1 1. (amended) A sea surface antenna comprising a
2 tube of metallic material, the tube having a substantially
3 longitudinal slot coupled at [or near] its midpoint to a
4 feed line, the slot being bridged by two pluralities of
5 [capacitances] varactor diodes to either side of the feed-
6 point, each plurality being distributed along a respective
7 part of the slot, the antenna being dimensioned so as to
8 operate in an evanescent mode at a resonant frequency less

2. An antenna according to claim 1 wherein the slot is shorted at each end.

3. (amended) A sea surface antenna comprising a tube of metallic material on a dielectric former, the tube having a longitudinal slot coupled at [or near] its midpoint to a feed line, the slot being bridged by two pluralities of [capacitances] varactor diodes to either side of the feed-point, each plurality being distributed along a respective part of the slot, the length of the antenna being less than 0.25λ and the diameter of the antenna being less than 0.02λ , where λ is the free space wavelength at the operating frequency, the antenna being dimensioned so as to operate in an evanescent mode at a resonant frequency less than the cut-off frequency, the antenna being provided with means for applying a variable bias to the varactor diodes.

4. An antenna according to claim 2 wherein the slot is shorted at each end.

Claim 5 Cancelled

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6. A sea surface antenna arrangement including two or more like antennas according to claim ³~~7~~ placed in a colinear configuration and connected electrically in parallel.

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